

## AMENDMENTS

### IN THE SPECIFICATION:

- Please replace the original specification and abstract with the enclosed substitute specification and abstract.

### IN THE DRAWINGS:

- Please replace the drawings filed on February 26, 2001 with the enclosed drawings (5 sheets).

### IN THE CLAIMS:

- Please amend the claims as follows:

1. (once amended) A method of interrogating at least one fiber optic sensor, the sensor coupled to [the] a pipe and sensing at least one parameter of a fluid in [a] the pipe, the method comprising:

generating successive light pulses;  
splitting the light pulses into first light pulses and second light pulses;  
delaying the second light pulses a known time period relative to the first pulses;  
combining the first and second light pulses onto a single optical fiber;  
directing the first and second light pulses through a first periodic grating of low reflectivity, through the optical sensor and through a second periodic grating of low reflectivity;

receiving reflected first light pulses and reflected second light pulses from the first grating;

receiving reflected first light pulses and reflected second light pulses from the second grating; and